

# MT9V125IA7XTCH-GEVB

## MT9V125 Evaluation Board User's Manual



ON Semiconductor®

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### EVAL BOARD USER'S MANUAL

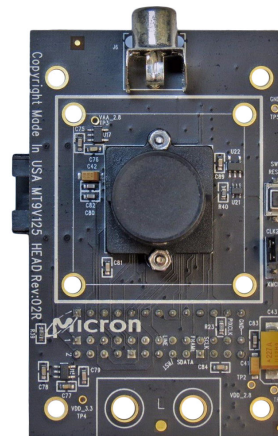


Figure 1. MT9V125 Evaluation Board

#### Evaluation Board Overview

The evaluation boards are designed to demonstrate the features of ON Semiconductor's image sensors products. This headboard is intended to plug directly into the Demo 2X system. Test points and jumpers on the board provide access to clock, I/Os and other miscellaneous signals.

#### Features

- Clock Input
  - ♦ Default – 27 MHz crystal oscillator
  - ♦ Optional Demo 2X controlled MC1k
- Two Wire Serial Interface
  - ♦ Selectable base address
- Serial LVDS Interface
- ROHS Compliant

#### Block Diagram

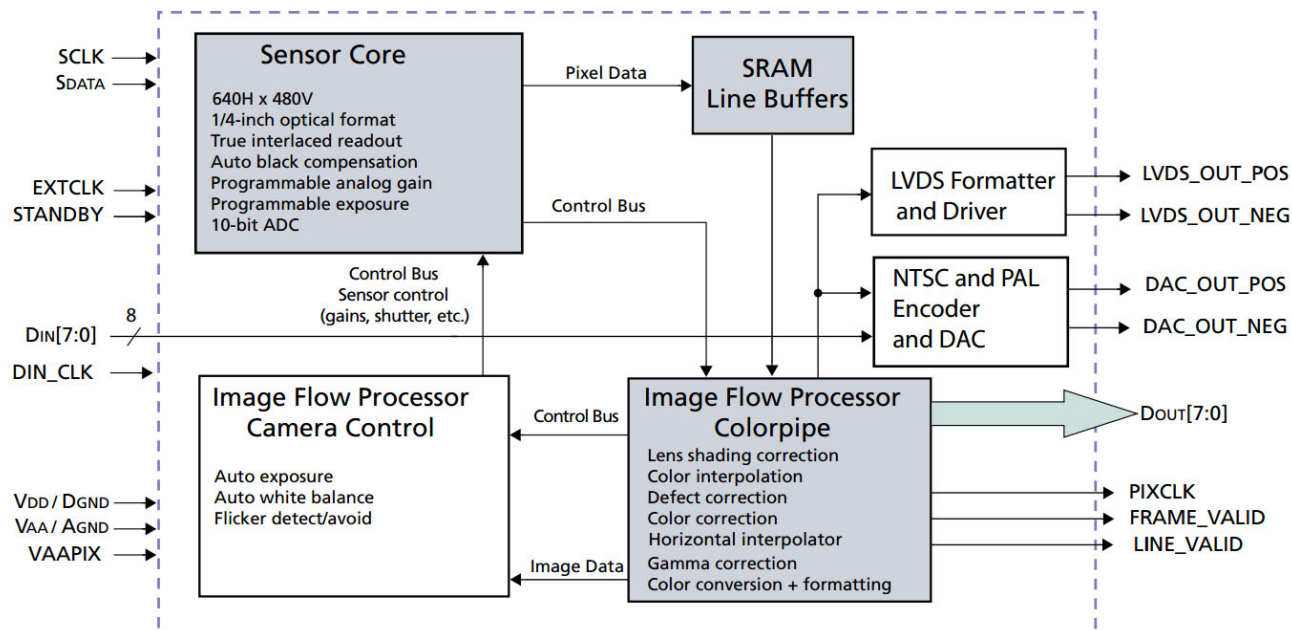


Figure 2. Block Diagram of MT9V125IA7XTCH-GEVB

# MT9V125IA7XTCH-GEVB

## Top View

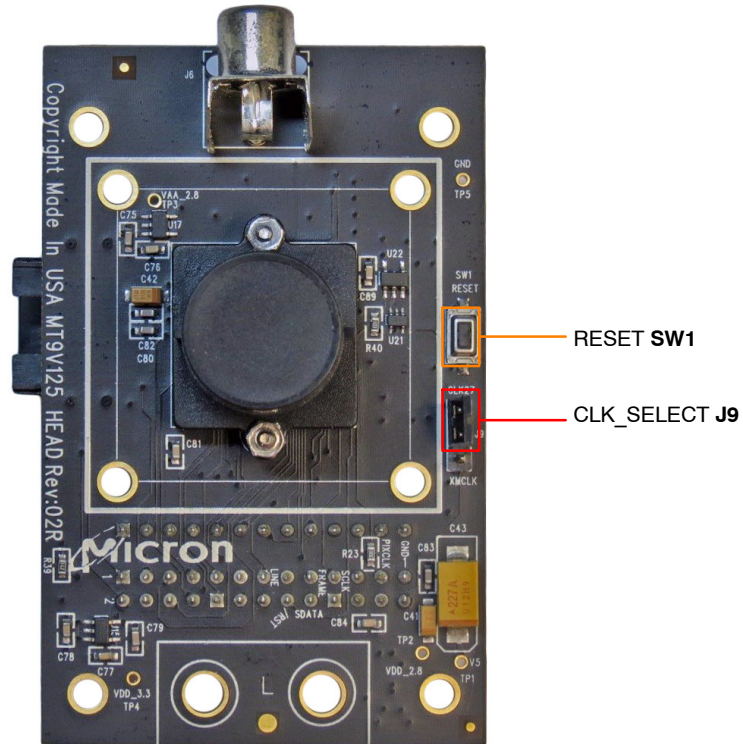


Figure 3. Top View of Evaluation Board – Jumpers

## Bottom View

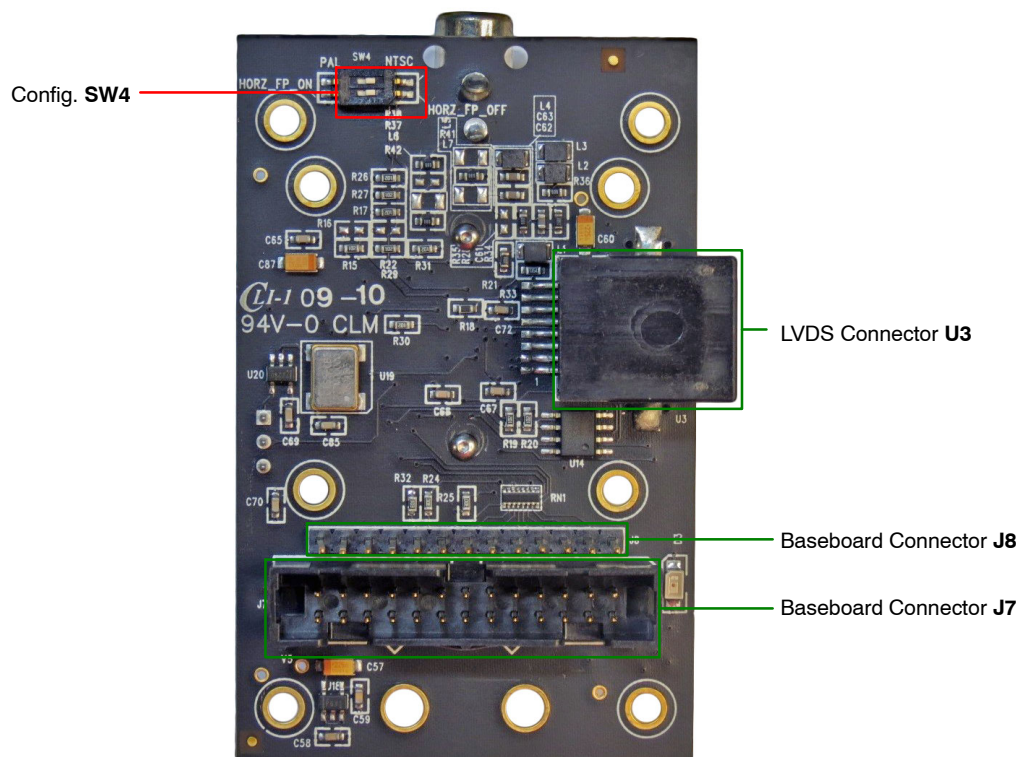
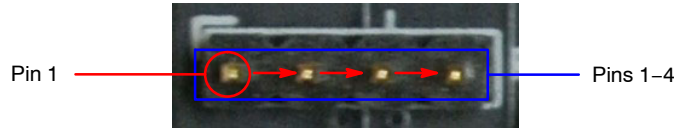


Figure 4. Bottom View of the Evaluation Board – Connector

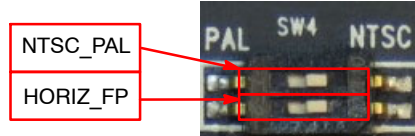
# MT9V125IA7XTCH-GEVB

## Jumper Pin Locations

The jumpers on headboards start with Pin 1 on the leftmost side of the pin. Grouped jumpers increase in pin size with each jumper added.



**Figure 5. Pin Locations for a Single Jumper.**  
Pin 1 is Located at the Leftmost Side and Increases as it Moves to the Right



**Figure 6. Default Switch Positions of SW4,**  
The First Switch (NTSC\_PAL) is Set to OFF, and the Second Switch (HORIZ\_FP) is Set to OFF

## Jumper/Header Functions & Default Positions

**Table 1. JUMPERS AND HEADERS**

| Jumper/Header No. | Jumper/Header Name | Pins                      | Description                                              |
|-------------------|--------------------|---------------------------|----------------------------------------------------------|
| J9                | CLK_SELECT         | 1-2 (Default)             | Connects to on-board oscillator                          |
|                   |                    | 2-3                       | Connects to XMCLK from Demo 2X board                     |
| SW1               | RESET              | N/A                       | When pushed, 400 ms reset signal will be sent to MT9V125 |
| SW4               | Config.            | NTSC_PAL<br>OFF (Default) | NTSC mode selected                                       |
|                   |                    | NTSC_PAL<br>ON            | PAL mode selected                                        |
|                   |                    | HORIZ_FP<br>OFF (Default) | Horizontal setting                                       |
|                   |                    | HORIZ_FP<br>ON            | Horizontal flip image readout format                     |

## Interfacing to ON Semiconductor Demo 2X Baseboard

The ON Semiconductor Demo 2X baseboard has a similar 26-pin connector and 13 pin connector which mate

with J7 and J8 of the headboard. The four mounting holes secure the baseboard and the headboard with spacers and screws.

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